

LISTING OF CLAIMS:

The following listing of claims replaces all previous versions and listings in the present application.

1. (Currently amended) A pressure sensor to be mounted on an intake system module of an engine, comprising:

a sensor IC having a pressure sensor element covered with mold resin, the mold resin being provided with a pressure introduction hole extending outward from the pressure sensor element so as to open to an outer surface thereof;

a board on which the sensor IC is mounted;

a case in which the sensor IC and the board are accommodated, the case being provided with a pressure introduction inlet penetrating a wall thereof wherein the case is ~~fixed~~ directly attached to an outer wall of the intake system module so that the pressure introduction inlet is opposed to a pressure introduction outlet provided in the outer wall; and

an interposed member including a resilient member and having a communication hole, the interposed member being entirely disposed between an inner wall of the case and the outer surface of the mold resin so as to allow the pressure introduction inlet to communicate with the pressure introduction hole without air leakage.

2. (Original) The pressure sensor according to claim 1, wherein the interposed member is a sealing resin with which an interior of the case is filled except the communication hole so as to encompass the sensor IC and the board.

3. (Previously presented) The pressure sensor according to claim 1, wherein the interposed member is resiliently deformed so as to contact air tightly with the inner wall of the case and the outer surface of the mold resin.

4. (Previously presented) The pressure sensor according to claim 1, wherein the intake system module is provided in an interior thereof with an intake air passage through which an intake air is supplied to the engine.

5. (Previously presented) The pressure sensor according to claim 4, wherein the pressure sensor is incorporated in an ECU for controlling the engine as an integrated body, and the ECU includes:

engine control devices in addition to the sensor IC, which are necessary for controlling the engine, mounted on the board in the case at positions where communication with the pressure introduction inlet is blocked by the interposed member.

6. (Currently amended) A pressure sensor to be mounted on an intake system module of an engine, the pressure sensor comprising:

a sensor IC mounted on a board, the sensor IC having a pressure sensor element covered with a mold resin, the mold resin being provided with a pressure introduction hole extending outward from the pressure sensor element so as to open to an outer surface thereof;

a case in which the sensor IC and the board are accommodated, the case having a pressure introduction inlet penetrating a wall thereof, the case being directly fixed to an outer wall of the intake system module so that the pressure introduction inlet is opposed to a pressure introduction outlet provided in the outer wall; and

a resilient member having a communication hole, the resilient member being entirely interposed between and contacting an inner wall of the case and the outer surface of the mold resin so as to allow the pressure introduction inlet to communicate with the pressure introduction hole without air leakage.

7. (Previously presented) The pressure sensor according to claim 6, further comprising a sealing resin with which an interior of the case is filled, the sealing resin interposed between the inner wall of the case, the outer surface of the mold resin, and around an outer surface of the resilient member except the communication hole so as to encompass the sensor IC and the board.

8. (Previously presented) The pressure sensor according to claim 6, wherein the intake system module includes an intake air passage in an interior thereof, through which an intake air is supplied to the engine.

9. (Previously presented) The pressure sensor according to claim 6, wherein:
the pressure sensor is incorporated in an ECU for controlling the engine as an integrated body; and

the ECU includes an engine control device in addition to the sensor IC, the engine control device controlling the engine, the engine control device mounted on the board in the case at a position where communication with the pressure introduction inlet is blocked by the resilient member.